

CLAIMS

1. Compositions comprising one or more vitamins and/or their
5 derivatives in association with an *Olea Europea* extract, preferably an aqueous extract, and/or one or more of its components, such as *oleuropeina*, tyrosol and hydroxytyrosol, and/or ionene polymers, along with one or more adjuvants and/or excipients pharmaceutically or cosmetically acceptable.
- 10 2. Compositions according to claim 1, wherein said vitamins and/or their derivatives are ascorbic acid and/or its derivatives.
3. Compositions according to claim 2, wherein said ascorbic acid is L-ascorbic acid.
4. Compositions according to claim 2, wherein derivatives of
15 ascorbic acid are esters of ascorbic acid with fatty acids or their salts.
5. Compositions according to claim 4, wherein ester of ascorbic acid with fatty acids is ascorbyl palmitate.
6. Compositions according to claim 1, wherein vitamins are chosen
20 in the group comprising vitamin A, E, D, K, B1, B2, B3, B5, B6, B8, B9, B12.
7. Compositions according to one of the preceding claims, wherein extract of *Olea Europea* is an aqueous extract.
8. Compositions according to claim 1, further comprising *Echinea purpurea* extract, *angustifolia* or *pallida* and/or one or more active
25 principles contained in *Echinea purpurea* extract, *angustifolia* or *pallida*.
9. Compositions according to claim 8, wherein said one or more active principles contained in *Echinea purpurea* extract, *angustifolia* or *pallida* are chosen from the group comprising heteroxylenes, rhamno-arabino- galactanes, glycoproteins, cichoric acid, alkylamides, caffeic
30 acid derivatives, flavonoids, caryophyllene.
10. Compositions according to claim 9, wherein derivatives of caffeic acid are echinacoside or Echinacea.
11. Compositions according to claim 9, wherein flavonoid is rutin.
12. Compositions according to one of the preceding claims, further
35 comprising one or more compounds chosen from the group comprising polymeric ethers, monohydric alcohols, polyhydric alcohols, tetraborates or thiosulfates.

13. Compositions according to claim 12, wherein polymeric ethers are ethylene polymers or propylene oxides.

14. Compositions according to claim 12, wherein polyhydric alcohol is etoxydiglycol.

5 15. Compositions according to one of the preceding claims, further comprising one or more compounds chosen in the group comprising adenosine triphosphate, adenosine diphosphate, phosphoenolpyruvate, creatine phosphate, inorganic phosphate.

10 16. Compositions according to one of the preceding claims, further comprising one or more substances included in the group comprising collagen, fibrin glue, fibrin and its derivatives, dura mater.

17. Compositions according to claim 15, wherein collagen is type I collagen.

15 18. Compositions according to one of the preceding claims, further comprising one or more compounds chosen from the group comprising hyaluronic acid or its derivatives, hydroxymethylcellulose, maltodextrines, amino acids.

19. Compositions according to one of the preceding claims, in the form of serum, gel emulsions, creams, medical devices.

20 20. Compositions according to claim 19, wherein medical devices are gauzes, bandages, plasters, silicon bars.

21. Compositions according to claim 1, wherein ionene polymers have the general formula (I):



25 wherein x and y are integral numbers and Z is an halide.

22. Compositions according to claim 21, wherein Z is Br or Cl.

23. Compositions according to claim 21, wherein ionene polymer is obtained by reaction of 1,4-dichlorobutane with tetra-methylen-diamine.

24. Compositions according to claim 1, wherein ionene polymers are chosen among those obtained by reaction of 1,4-dichlorobutane with poly(oxyethylene(dimethylimino)-ethylene(dimethylimino)ethylene dihalides), poly(2-hydroxyethylene-dimethyliminio-2-hydroxypropylene-dimethylimino methylene) dihalides, poly[{alkyl-(3-ammoniopropyl)imino}trimethylene dihalides], poly-[dialkyl-imino)ethylene halides] or with poly-[(hydroxy-dialkyl-imino)ethylene halides].

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25. Composition according to one of the preceding claims, wherein ascorbic acid or its derivatives are present at a concentration between 0.1% and 35%.

5 26. Compositions according to claim 25, wherein ascorbic acid or its derivatives are present at a concentration between 10% and 25%.

27. Compositions according to claim 25, wherein ascorbic acid or its derivatives are present at a concentration between 12% and 20%.

28. Composition according to one of the preceding claims, wherein Vitamin A is present at a concentration between 0.01% and 5%.

10 29. Composition according to one of the preceding claims, wherein Vitamin E is present at a concentration between 0.01% and 5%.

30. Composition according to one of the preceding claims, wherein ionene polymers are present at a concentration between 0.001% and 10%.

15 31. Compositions according to claim 30, wherein said ionene polymers are present at a concentration between 1.5% and 3.2%.

32. Composition according to one of the preceding claims, wherein extract of *Olea Europea* is present at a concentration between 0.1% and 95%.

20 33. Compositions according to one of the preceding claims, wherein extract of *Olea Europea* is present at a concentration between 5% and 50%.

25 34. Compositions according to one of the preceding claims, wherein extract of *Olea Europea* is present at a concentration between 15% and 30%.

35. Compositions according to one of the preceding claims, wherein polymeric ethers are present at a concentration between 5% and 50%.

30 36. Compositions according to one of the preceding claims, wherein mono and/or polyhydric alcohols are present at a concentration between 5% and 50%.

37. Compositions according to one of the preceding claims, wherein thiosulfates are present at a concentration between 0% and 5%, preferably between 0.01% and 3%.

35 38. Compositions according to one of the preceding claims, wherein Echinacea purpurea and/or one or more of its active principles are present at a concentration between 0.001% and 10%.

39. Compositions according to one of the preceding claims, wherein, one or more compounds of the group comprising adenosine triphosphate, adenosine diphosphate, phosphoenolpyruvate, creatine phosphate, inorganic phosphate are present at a concentration between
5 0.001% and 35%.

40. Compositions according to one of the preceding claims, wherein thiosulfates are provided as potassium and/or sodium and/or ammonium salts.

41. Compositions according to one of the preceding claims, comprising 20% water, preferably bi-distilled water, 20% L-ascorbic acid,
10 2.66% ionene polymer having formula (I), with $x=3$ and $y=3$, 0.3% potassium thiosulfate, 15% aqueous extract of *Olea Europea*, 42% of a mixture 50:50 of propylenglycol and 1,2 butylenglycol.

42. Compositions according to one of the preceding claims, comprising 20% water, preferably bi-distilled water, 20% L-ascorbic acid,
15 2.66% ionene polymer having formula (I), with $x=3$ and $y=3$, 0.3% potassium thiosulfate, 22% aqueous extract of *Olea Europea*, 15% polyoxyethylene/polyoxypropylene polymer, 20% of a mixture 50:50 of propylenglycol and 1,2 butylenglycol.

43. Compositions according to one of the preceding claims, comprising 14.2% L-ascorbic acid, 26.8% aqueous extract of *Olea Europea*,
20 44% etoxyglycol, 0.06% citric acid, 14.2% depurated water.

44. Compositions according to one of the preceding claims having a pH value in the range between 2.0 and 6.0.

45. Medical devices comprising the compositions as defined in
25 claims 1 – 44.

46. Compositions according to claim 1, comprising vitamins A and E in association with one or more ionene polymers, along with one or more adjuvants and/or excipients, pharmaceutically or cosmetically acceptable.

47. Compositions according to claim 46, wherein vitamin A is present at a concentration between 0.01% and 5%.
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48. Compositions according to claim 46, wherein vitamin E is present at a concentration between 0.01% and 5%.

49. Compositions according to claim 46, wherein ionene polymers are present at a concentration between 0.001% and 10%.
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50. Compositions according to claim 49, wherein ionene polymers are present at a concentration between 1.5% and 3.2%.

51. Compositions according to one of the preceding claims 46 - 50, further comprising one or more compounds chosen in the group comprising cogic acid, azelaic acid, fitic acid, glycolic acid, lactic acid, fumaric acid, tartaric acid, L-aspartic acid, L-ascorbic acid, fitic acid, Arbutin.

52. Compositions according to claim 51, wherein said one or more components are be present at a concentration between 1.5% and 10%.

53. Compositions according to one of the preceding claims 46 - 52, further comprising one or more emollients, flowing, emulsifying agents, preservatives, surface-active, fungicides.

54. Compositions according to claim 53, wherein emollients are cetyl esters at a concentration between 0.1% and 10%.

55. Compositions according to claim 54, wherein cetyl esters are present at a concentration between 5% and 9%.

56. Compositions according to claim 53, wherein flowing are chosen between stearyl alcohol at a concentration between 0.1% and 15%, cheryl alcohol at a concentration between 5% and 12%.

57. Compositions according to claim 56, wherein stearyl alcohol is present at a concentration between 5% and 12%.

58. Compositions according to claim 53, wherein emulsifying agents are chosen among cetyl alcohol at a concentration between 0.1% and 6%, glycerine between 0.1% and 18%, laurylsulfate sodium between 0.1% and 1.5%.

59. Compositions according to claim 58, wherein cetyl alcohol is present at a concentration between 2% and 5%.

60. Compositions according to claim 58, wherein glycerine is present at a concentration between 2 and 12%.

61. Compositions according to claim 58, wherein laurylsulfate sodium is present at a concentration between 0.5% and 1.0%.

62. Compositions according to claim 53, wherein preservative is methylparaben at a concentration between 0.1% and 0.4%.

63. Compositions according to claim 62, wherein methylparaben is present at a concentration between 0.05% and 0.3%.

64. Compositions according to claim 53, wherein surface-active are present at a concentration between 0.01% and 0.15%.

65. Compositions according to claim 64, wherein surface-active are present at a concentration between 0.05% and 0.12%.

66. Compositions according to claim 53, wherein fungicide is propyl paraben at a concentration between 0.01% and 0.1%.

67. Compositions according to claim 66, wherein propyl paraben is present at a concentration between 0.02% and 0.05%.

5 68. Compositions according to one of the claims 46 - 67, comprising ionene polymer between 0.01% and 10% in weight, cogic acid between 1% and 10% in weight, azelaic acid between 1% and 30% in weight, glycolic and/or lactic acid between 1.5% and 15% in weight, trans-cis retinic acid between 0.01% and 5% in weight, acetate E vitamin between
10 0.5% and 5% in weight, hydrating base cream comprising at least an emollient or wetting-agent selected from a group comprising cetyl esters, cetyl alcohol, glycerine, a preservative selected from the group comprising methyl paraben, propyl paraben and laurylsulfate sodium as emulsifying agent, and finally water up to 100% in weight.

15 69. Compositions according to one of the claims 1 – 68 for use in the medical field.

70 Use of compositions according to claims 1 – 68 for cosmetic treatment.

71. Use according to claim 70 for treatment of wrinkles.

20 72. Use according to claim 70 for treatment of skin spots.

73. Use of compositions according to claims 1 – 68 for preparation of a medicament for treatment of keratosis actinic.

74. Use of compositions according to claims 1 – 68 for preparation of a medicament for treatment of wounds.

25 75. Use of compositions according to claims 1 – 68 for preparation of a medicament for treatment of sores.

76. Use of compositions according to claims 1 – 68 for preparation of a medicament for treatment of diabetic cutaneous sores, and of acute and chronic lesions of skin.

30 77. Use of compositions according to claims 1 – 68 for preparation of a medicament for treatment of lesions of oral mucous.

78. Use of compositions according to claims 1 – 68 for preparation of a medicament for prevention and treatment of skin tumours.

35 79. Use of compositions according to claims 1 – 68 for preparation of a medicament for treatment of psoriasis.

80. Use of ionene polymers and/or *Olea Europea* for stabilising compositions comprising vitamins.

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81. Use according to claim 80, wherein compositions are aqueous solutions or emulsions.

82. Use according to claim 80, wherein vitamin are chosen from the group comprising vitamin A, B1, B2, B3, B5, B6, B8, B9, B12, C, D, E, K.

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